

CLAIMS

What is claimed is:

1. An automatic screwfeeder comprising:

a first assembly having a body, a core slidably coupled to said body and a bit rotatably supported by said body and said core, said bit being axially retained by said body within a bit bore and axially moveable relative to said core, said core including a screw feeding passageway in communication with said bit bore journal, wherein screws fed from said screw feeding passageway are generally aligned with said bit in a staged position prior to being driven;

a second assembly including a screw holder in communication with said screw feeding passageway, an extension tube spaced apart from said screw holder and a driveshaft, said driveshaft being positioned within said extension tube and selectively drivingly engageable with said bit; and

a coupler rotatably captured on one of said first and second assemblies, said coupler being engageable with the other of said first and second assemblies to rigidly interconnect said first and second assemblies.

2. The automatic screwfeeder of claim 1 wherein said first assembly includes an access cover pivotally coupled to said core to allow access to screws located in said staged position.

3. The automatic screwfeeder of claim 2 wherein the access cover is translucent to allow an operator to view inside the automatic screwfeeder.

4. The automatic screwfeeder of claim 3 wherein said access cover pivots about an axis transverse to and offset from an axis of rotation of said bit.

5. The automatic screwfeeder of claim 1 wherein said body includes an aperture in receipt of a portion of said core.

6. The automatic screwfeeder of claim 5 wherein said core includes a tubular section which telescopes within a cavity formed within said body.

7. The automatic screwfeeder of claim 1 further including a magnet mounted to said core adjacent said staged position.

8. An automatic screwfeeder comprising:

a body;

a bifurcated core having first and second housing portions, said core being moveable from an extended position to a collapsed position, wherein said first housing portion of said core telescopically enters said body when said core is in said collapsed position, said second housing portion including a screw feeding passageway in communication with a bit bore of said first housing portion, wherein screws are fed from said screw feeding passageway to a location in communication with a bit positioned in said bit bore prior to being driven;

a screw holder coupled to said second housing portion in communication with said screw feeding passageway;

an extension spaced apart from said screw holder and coupled to said body; and

a driveshaft positioned with said extension and selectively drivingly engageable with said bit.

9. The screwfeeder of claim 8 further including a filter coupled to an end of said screw holder, said filter including a plurality of spaced apart radially extending ribs.

10. The screwfeeder of claim 9 wherein said ribs include apertures at least some of which are not coaxially aligned.

11. The screwfeeder of claim 9 wherein said ribs include apertures of different size.

12. The automatic screwfeeder of claim 9 wherein said filter includes a first half and a second half, said first half including a portion of each of said radially extending ribs.

13. The automatic screwfeeder of claim 12 wherein said filter restricts screws from exiting said screw holder.

14. The automatic screwfeeder of claim 8 further including a depth stop rotatably coupled to said body, said depth stop including a plurality of stepped annular surfaces positioned within a cavity defined by said body, wherein one of said stepped surfaces selectively engages said core to define said collapsed position.

15. The automatic screwfeeder of claim 14 wherein said depth stop includes a radially extending lever extending through an aperture of said body, said lever being graspable by an operator to rotate said depth stop.

16. The automatic screwfeeder of claim 15 wherein rotation of said depth stop varies the position of said bit when said core is in said collapsed position.

17. The automatic screwfeeder of claim 8 further including an access cover pivotally coupled to said core to allow access to screws positioned within said core.

18. The automatic screwfeeder of claim 17 wherein said access cover rotates about an axis transverse to an axis of rotation of said bit.

19. An automatic screwfeeder comprising:

a body;

a core slidably coupled to said body, said core including a screw feeding portion and bit support portion, wherein relative movement of said core to said body transfers a screw from said screw feeding portion to said bit support portion, said screw being selectively engageable by a bit; and

an access cover pivotally coupled to said core to allow access to said screws positioned in said core.

20. The automatic screwfeeder of claim 19 wherein said access cover rotates about an axis transverse to an axis of rotation of said bit.

21. The automatic screwfeeder of claim 20 further including a screw holder and an extension, said screw holder being coupled to said core and in communication with said screw feeding portion, said extension being coupled to said body and in communication with said bit support, said screw holder housing a plurality of screws.

22. The automatic screwfeeder of claim 21 further including a driveshaft positioned within said extension and drivingly coupled to said bit.

23. A method of operating an automatic screwfeeder including a first assembly and a second assembly, the first assembly having a core slidably coupled to a body and a bit rotatably supported by the body, the second assembly having a screw holder, an extension and a driveshaft, the method comprising the steps of:

drivingly interconnecting the driveshaft and the bit;

coupling the extension to the body;

coupling the screw holder to the core;

inserting non-collated threaded fasteners within the screw holder, said threaded fasteners being substantially coaxially aligned; and

selectively transferring one of said fasteners from the screw holder to a location within the core where said one fastener is selectively engageable with the bit.

24. The method of claim 23 wherein the step of coupling the extension to the body includes fastening a coupler to one of the extension and the body.

25. The method of claim 23 further including rotating a protruding lever of a depth stop to vary a depth the threaded fastener is driven, wherein a majority of the depth stop is positioned within the body.

26. The method of claim 25 further including detachably coupling the driveshaft to a hand drill.

27. The method of claim 23 further including sliding the body relative to the core to cause a portion of the core to telescopically enter the body.

28 The method of claim 27 wherein the step of sliding includes applying sufficient force to cause the core to engage and deflect a detent spring to allow further relative movement of the core and body.

29 The method of claim 27 wherein the step of sliding the body relative to the core includes engaging and disengaging a toggle with a portion of the body, said toggle being operable to selectively transfer said one fastener from the screw holder.